

Remarks

The Examiner has rejected claims 17-18, 20-24, 26-29, 31, and 33-36 under 35 U.S.C. § 102(b) as being anticipated by French Patent No. 2578974 to Lach ("Lach"). In addition, the Examiner has rejected claims 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Lach. Finally, the Examiner has rejected claims 19 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Lach in view of U.S. Patent No. 4,222,262 to Batie et al. ("Batie et al.").

In this response, Applicants have amended claims 17, 20, and 36 and have added new claims 37 and 38. Claims 17-38 are currently pending. Applicants respectfully request withdrawal of the rejections to claims 17-36 and allowance of new claims 37 and 38.

A. Rejections to claims 17-18, 20-24, 26-29, 31, and 33-36:

Claims 17-18, 20-24, 26-29, 31, and 33-36 were rejected under 35 U.S.C. § 102(b) as being anticipated by Lach. Applicants have amended independent claims 17 and 36 to recite that the transmitter configured to emit a "focused beam outside of the component to the receiver." Applicants have also amended claim 20 to be consistent with amended claim 17. In addition, Applicants added new claims 37 and 38 reciting a "punctiform beam." Support for the feature is found in the original application, for example, at paragraph [0025], discussing a laser beam.

Lach describes a body or component 1 shaped or arranged in order to be passed through by a light flux while being impervious to external light. See Abstract.

Independent claims 17 and 36 recite a device to detect a state of a component that includes the feature, among other features, of a transmitter "configured to emit a focused beam outside of the component to the receiver."

Applicants respectfully submit that Lach, which describes a device in which a light flux is passed *through* a component from a transmitter 2 to a receiver 3, fails to describe the feature of a transmitter configured to emit a focused beam *outside of the component* to the receiver.

Because Lach does not describe at least this feature of independent claims 17 and 36 -- a feature also included in each of the dependent claims 18-35, Applicants respectfully request that the rejections to claims 17-18, 20-24, 26-29, 31, and 33-36 be withdrawn.

B. Rejections to claims 30 and 32 :

Claims 30 and 32 were under 35 U.S.C. § 103(a) as being unpatentable over Lach. Applicants respectfully submit that the feature of a transmitter disposed on the component at a distance from the receiver and configured to emit a focused beam outside of the component to the receiver -- a feature of both claims 30 and 32 -- is not taught or suggested by Lach.

Lach teaches emitting light from a transmitter 2 *through* a component 1 to a receiver 3 to detect a state of the body. The passing of the light through the component is necessary, since Lach teaches that the mass of the body influences the intensity of the beam received by the receiver. Thus, Lach actually teaches away from the feature of emitting a focused beam outside of the component to the receiver.

Accordingly, because Lach does not teach or suggest the feature of independent claim 17 (and therefore also the features of dependent claims 30 and 32), Applicants respectfully request withdrawal of the rejections to claims 30 and 32 under 35 U.S.C. §103(a).

C. Rejections to claims 19 and 25:

Claims 19 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lach in view of Batie et al. Applicants respectfully submit that the combination of Batie et al. and Lach do not teach or suggest at least the feature of claims 19 and 25 of a transmitter disposed on the component at a distance from the receiver and configured to emit a focused beam outside of the component to the receiver.

Batie et al. teaches the use of photodiodes to detect light intensity in a hardness testing apparatus for testing the hardness of a separate specimen 69 and does not teach that either the photodiode 1, nor a light transmitting device are be displaced on the component in Batie et al. Rather, Batie et al. teaches a hardness testing apparatus having a light source and a photodiode that are completely separate from, and not disposed on the specimen 69. The light source is also not described as being a focused beam. As previously discussed the feature of a transmitter disposed on the component and configured to emit a focused beam outside of the component to the receiver is also not taught or suggested by Lach.

Accordingly, Applicants respectfully request withdrawal of the rejections to claims 19 and 25 under 35 U.S.C. § 103(a).

D. New Claims 37 and 38:

Applicants have added new claims 37 and 38 and respectfully submit that those claims are allowable. New claims 37 and 38 depend from claims 17 and 36 respectively and include the further feature that the focused beam is a punctiform beam.

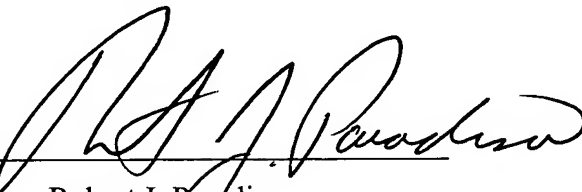
CONCLUSION

In view of the amendments made and arguments presented, Applicants respectfully submit that the presently pending claims are in condition for allowance.

An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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